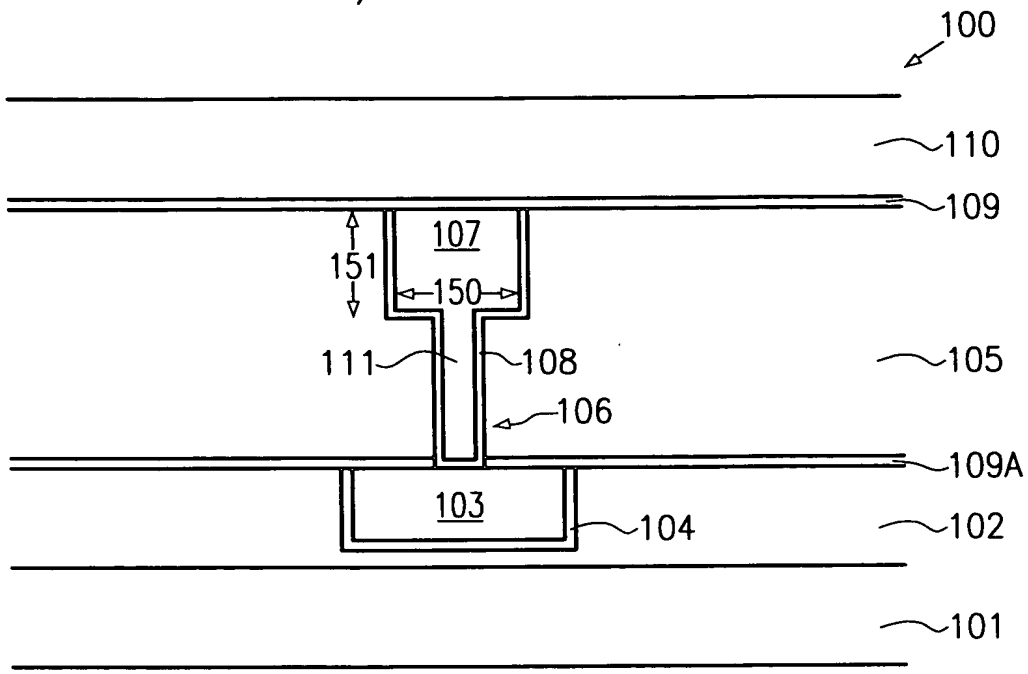
100
110
109
107
151
150
111
108
105
106
109A
103
104
102
101

FIG.1a

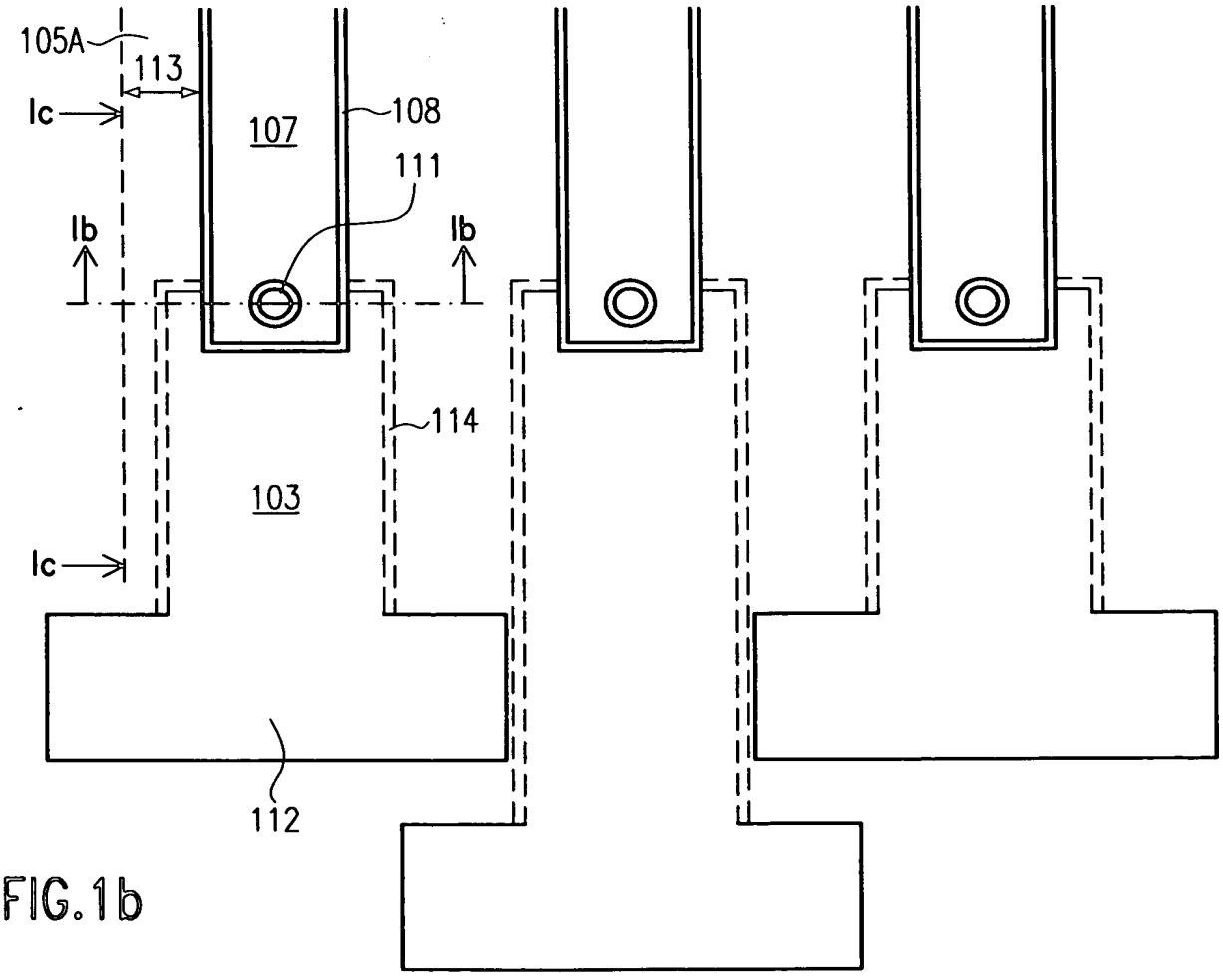
105A
113
Ic
107
108
111
Ib
Ib
114
103
Ic
112

FIG.1b

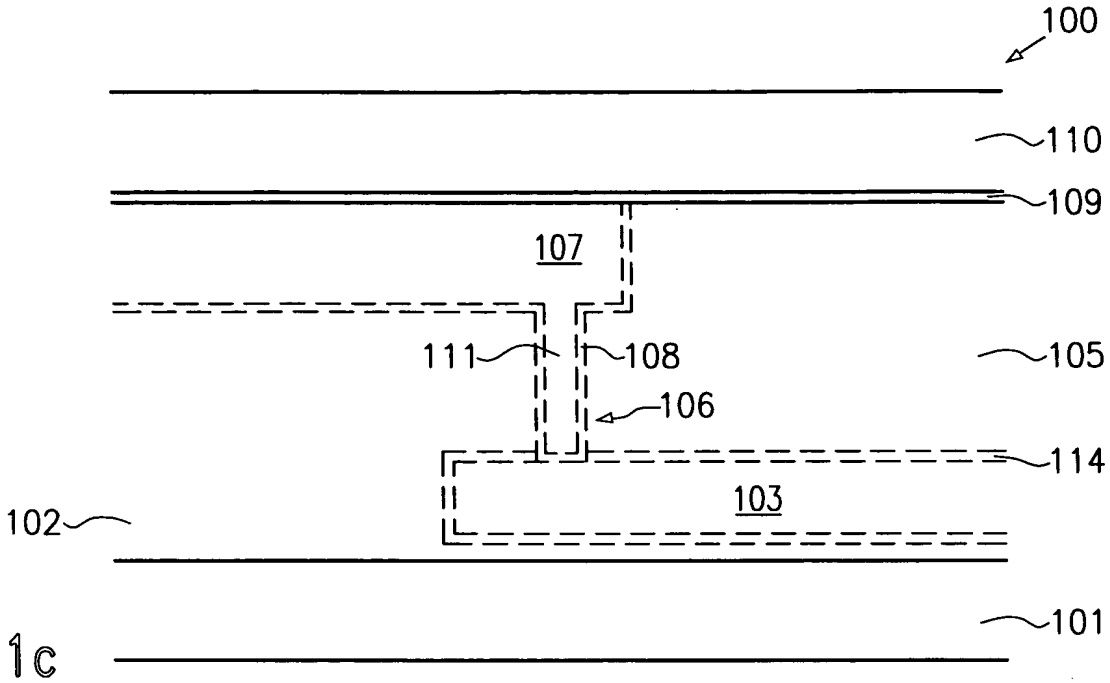
100
110
109
107
111
108
105
106
114
103
102
101

FIG.1c

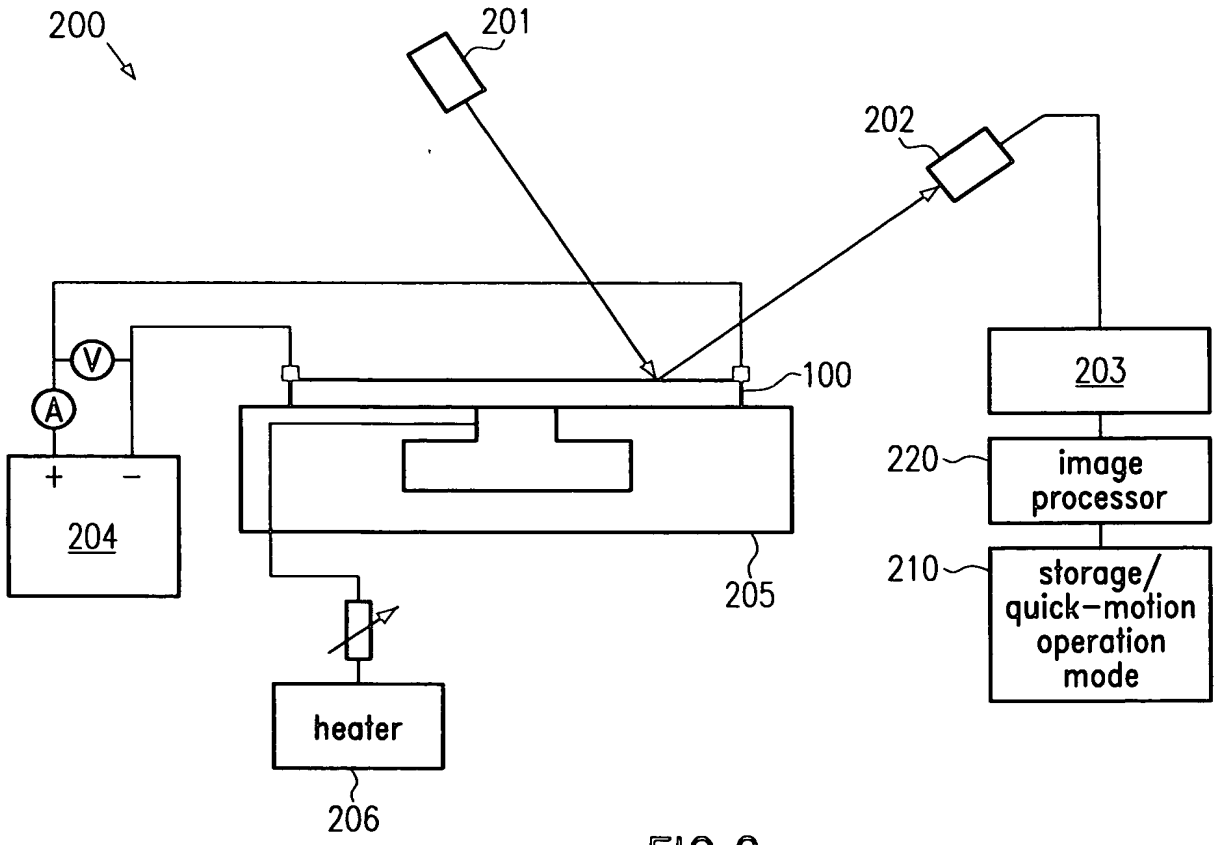
200
201
202
V
A
+
−
204
100
203
220
image processor
210
storage/ quick-motion operation mode
205
heater
206

FIG.2

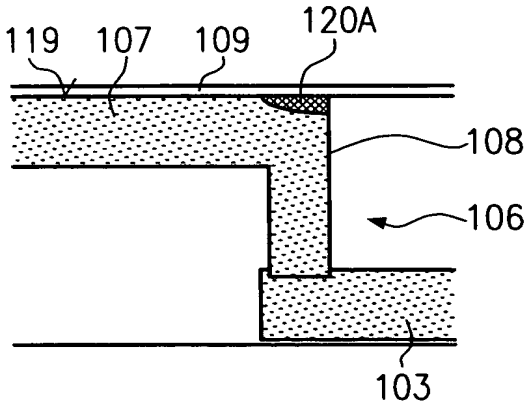

FIG.3a

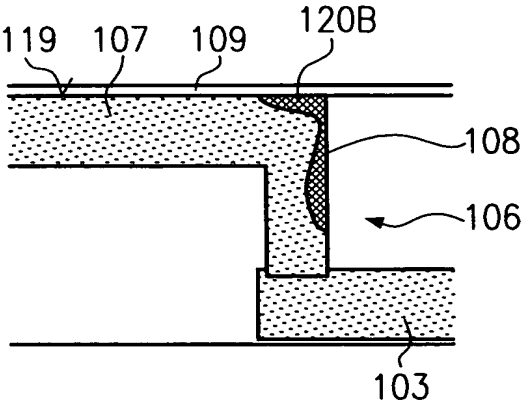

FIG.3b

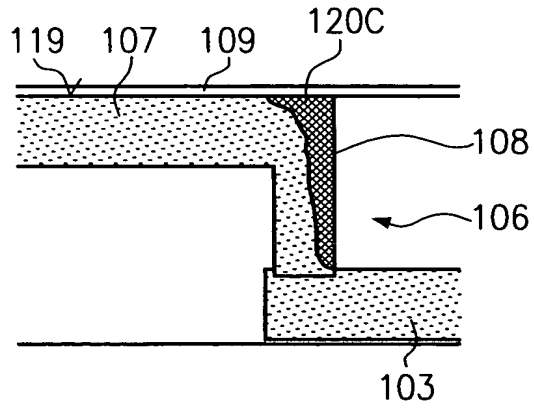

FIG.3c

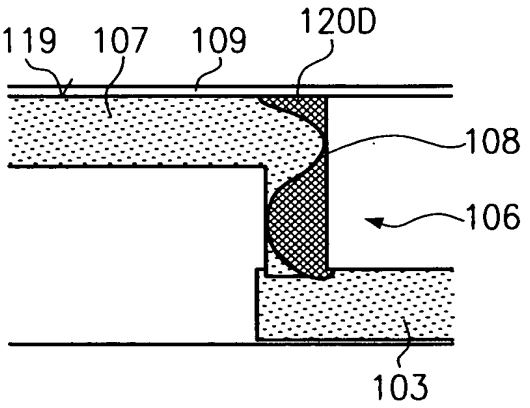

FIG.3d

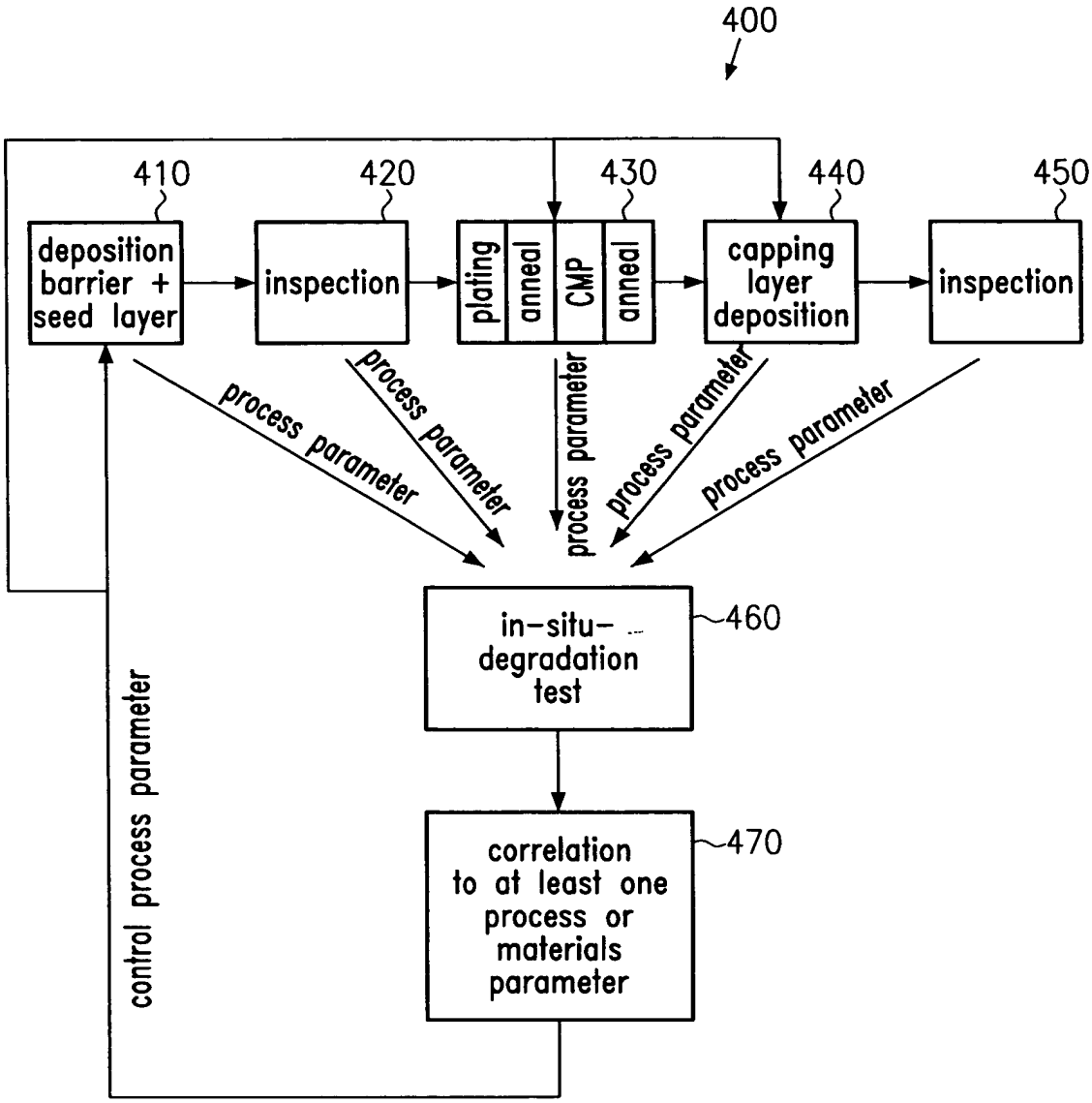
400
410
420
430
440
450
deposition barrier + seed layer
inspection
plating
anneal
CMP
anneal
capping layer deposition
inspection
process parameter
process parameter
process parameter
process parameter
process parameter
in-situ- degradation test
460
correlation to at least one process or materials parameter
470
control process parameter

FIG.4